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Protecting Airport Communities from Particle Emissions Act

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Background: Ultrafine particles (UFP) pose an outside threat to residents in airport adjacent communities. Unfortunately, only a handful of studies have been conducted in the United States to inform our scientific understanding of, and the federal government's approach to regulating these particles.

What does the current research say about UFPs around airport communities?

In 2014, a first-of-its-kind study was conducted around Los Angeles International Airport examining the levels of ultrafine particles found in the areas surrounding the airport. That study determined that these ultrafine particles were being emitted over a much larger area than previously thought and could be causing more serious and widespread harm.

According to the FAA's own research, fine and ultrafine particles in the atmosphere are considered a health risk in humans because of their ability to penetrate into the human respiratory system. UFPs may be particularly dangerous because their small size may lead to the aggravation of heart ailments; they may contribute to lung disease, and cause nervous system impacts. Additionally, studies have demonstrated that lower income and minority communities tend to be exposed to higher levels of pollution. Unfortunately, the degree to which aviation contributes to pollution exposure is not fully known.

What are the current gaps in regulation of UFPs?

There are no specific guidelines for regulating or measuring the smallest particles because the FAA does not identify them as a separate pollutant. In order to properly regulate these particles, more analysis is needed about these pollutants, their attributes, dispersions, and effects on human health.

What does the bill do?

The **Protecting Airport Communities from Particle Emissions Act** seeks to build on the existing research by directing the Federal Aviation Administration (FAA) to partner with the Environmental Protection Agency (EPA) and institutions of higher education to conduct a national study on this issue.

- A bill to require the Federal Aviation Administration and the Environmental Protection Agency to jointly partner with an institution of higher education to study airborne ultrafine particles (UFPs) and their effect on human health.
- The study must examine the characteristics of UFPs, the spatial and temporal distributions of UFP concentrations, the primary sources of UFPs, the contribution of aircraft and airport operations to the distribution of UFP concentrations, and the potential health effects associated with elevated UFP exposures, particularly for vulnerable groups.
- The study shall also identify measures intended to reduce emissions related to aircraft and airport operations and identify information gaps related to understanding relationships between UFP exposures and health effects, contributions of aviation-related emissions to UFP exposures, and the effectiveness of mitigation measures.